

Claims

What is claimed is:

1. A case for computer having a solid shape formed by a plurality of outer panels assembled together, and into which are installed bays for mounting modules for computer,

comprising at least switches and insertion/removal openings for external storage modules on front side and at least connectors on rear side;;

wherein

(1) the outer panels are removably installed by using screws on outside of frame members that form outline of the solid shape,

(2) the frame members comprise,

(a) inner frames that are arranged so as to form outline of each plane of the solid shape,

(b) corner parts that are arranged at corners of the inner frames and that connect the adjacent inner frames,

(c) outer frames that bridge the adjacent corner parts and are affixed onto the inner frames,

(3) the inner frames, the corner parts, and the outer frames are assembled by using screws, so that the case is easy to disassemble.

2. A case for computer comprising

(1) a first unit case, which has a solid shape into which are installed at least a bay for external storage module and a bay for boards, including a motherboard,

- (2) a second unit case, which has a solid shape into which is installed a bay for power module, and
- (3) a third unit case, which has a solid shape into which is installed a bay for internal storage module,
 - wherein
 - (1) the outer panels are removably installed by using screws on outside of frame members that form outline of each of the solid shape of the first, second, and third unit cases
 - (2) the frame members comprise,
 - (a) inner frames that are arranged so as to form outline of each plane of the solid shape,
 - (b) corner parts that are arranged at corners of the inner frames and that connect the adjacent inner frames,
 - (c) outer frames that bridge the adjacent corner parts and are affixed onto the inner frames,
 - (3) the inner frames, the corner parts, and the outer frames are assembled by using screws, so that the case is easy to disassemble.

3. A case for computer as described in Claim 2, wherein the second and third unit cases can be affixed onto the rear of the first unit case.

4. A case for computer as described in Claim 2, wherein installing panels — for external storage modules, internal devices such as a motherboard and switches, a power module, and internal storage modules — are installed within the first, second, and third unit cases by using screws, so that said panels can easily be installed and removed.

5. A case for computer having a solid shape formed by a plurality of outer panels assembled together, and into which are installed bays for mounting modules for computer,

comprising at least switches and insertion/removal openings for external storage modules on front side and at least connectors on rear side;

wherein

(1) the outer panels are removably installed by using screws on outside of frame members that form outline of the solid shape,

(2) the frame members comprise,

(a) outer frames that are arranged so as to form outline of each plane of the solid shape,

(b) corner parts that are arranged at corners of the solid shape and that connect adjacent outer frames,

(3) the outer frames and the corner parts are assembled by using screws, so that the case is easy to disassemble.

6. A case for computer as described in Claim 5, wherein

a disk-drive bay in which a plurality of large and small disk drives serving as internal and external storage modules can be installed under the condition that they are stacked, with the disk-drive bay comprising:

(1) a pair of left-side and right-side first angle panels that (a) are arranged across two vertically stacked large disk drives and sustain the two drives from their respective sides, and (b) affixed to top face of a bay-fixing panel that is affixed to an outer frame that forms bottom plane of the case,

(2) a plurality pairs of left-side and right-side second angle panels that (a) are sequentially arranged across adjacent two of a plurality of vertically stacked large disk

drives that are placed on the aforementioned upper large hard disk drive, and (b) sustain the two adjacent drives from their respective sides, and

(3) left-side and right-side third angle panels that (a) sustain a small disk drive that is stacked atop the uppermost large disk drive from its respective sides, and (b) are affixed respectively to the left-side and right-side second angle panels that are arranged at the uppermost large disk drive,

and wherein

a plurality of second angle panels that have the same shape as the aforementioned second angle panels, can be installed consecutively (1) by being arranged across vertically adjacent two of a plurality of third left-side and right-side third angle panels that have the same shape as the aforementioned third angle panels, and that sustain one by one a plurality of small disk drives that are stacked successively on the aforementioned small disk drive from their respective sides, and (2) by fixing the two adjacent third angle panels, and

a plurality of aforementioned large and small disk drives are stacked, through (a) the pair of the left-side and right-side first panels, (b) the plurality pairs of the second, left-side and right-side panels, and (c) the left-side and right-side third angle panels, being affixed to the panels by using screws, so that the case is easy to disassemble.

7. A case for computer as described in Claim 6, wherein

(1) the first angle panels

(a) have a fixing flange to be affixed to top face of the bay-fixing panel by using screws, and (b) have flat installing portions that are installed consecutively to the fixing flange and are inflected into L-shaped cross-section and

are arranged across the two vertically adjacent large hard disk drives and are affixed to the sides of the two drives by using screws,

(2) the second angle panels have flat installing portions that are arranged across the two vertically adjacent large hard disk drives and are affixed to the sides of the two drives by using screws,

(3) the left-side and right-side third angle panels have

(a) flat installing portions that are installed, by using screws, to their respective sides of a small disk drive that is stacked on the uppermost of the stack of large disk drives, and (b) fixed parts that are installed consecutively to the flat installing portions of the third angle panels and are inflected into a crank-shaped cross-section so as to protrude outwards to both left and right sides and that are to be affixed, by using screws, to the flat installing portions of the second left-side and right-side angle panels that are arranged atop the uppermost large disk drives,

and that is such that

(4) the flat installing portions of the second angle panels and the fixed parts of the left-side and right-side third angle panels can be arranged across and connected with vertically adjacent two each other.

8. A case for computer as described in Claim 7, wherein

(1) engagement parts on upper end of the flat installing portions of the first angle panels and lower end of the flat installing portions of the second angle panels so as to fix position at which the first and second panels contact each other, and

(2) other engagement parts on the upper end of the flat installing portions of the second angle panels and the lower end of the flat installing portions of the other second angle panels, which are arranged in such a way that said other second angle panels are adjacent to each other, so as to fix position at which said first and second angle panels contact each other.

9. A case for computer as described in Claim 6, wherein

a disk-drive bay in which at least one of each large and small disk drives can be installed under the condition that they are stacked, with said disk-drive bay comprising

(1) a pair of left-side and right-side first angle panels that sustain the large disk drive(s) from their respective sides, and affixed to bottom face of a bay-fixing panel that is affixed to an outer frame that forms top plane of the case

(2) left-side and right-side third angle panels that (a) hold a small disk drive that is placed at the bottom of the large disk drive from its respective sides, and (b) are affixed respectively to the left-side and right-side first angle panels

(3) the large and small disk drives are stacked, through pairs of said left-side and right-side first and third angle panels, being affixed to the panels by using screws, so that the disk drives can easily be removed.

10. A case for computer as described in Claim 9, wherein

the pair of left-side and right-side first angle panels and left-side and right-side third angle panels as described in Claim 9, with said first angle panels having the same shape as those of the first angle panels in Claim 7 or Claim 8, and said third angle panels having the same shape as the left-side and right-side third angle panels in Claim 7.

11. A method of manufacturing a case for computer having a solid shape formed by a plurality of outer panels assembled together, and into which are installed bays for mounting modules for computer,

with said method comprising

(1) a first step of assembling frame members that form outline of the solid shape, in such a way that disassembly is easy, by

(a) arranging inner frames so as to form outline of each plane of the solid shape, (b) arranging corner parts at corners of the inner frames,

(c) connecting the adjacent inner frames, and

(d) affixing outer frames onto the inner frames with bridging the adjacent corner parts, and

(2) a second step of affixing the outer panels to the outside of the frame members, by using screws, in a manner that makes the case easy to disassemble.

12. A method of manufacturing a case for computer having a solid shape into which are installed bays for mounting modules for computer and onto which a plurality of outer panels are affixed,

with said method comprising

(1) a first step of assembling frame members that form outline of the solid shape, in such a way that disassembly is easy, by

(a) arranging outer frames so as to form outline of each plane of the solid shape,

(b) arranging corner parts at corners of the outer frames,

(c) connecting the adjacent outer frames, and

(2) a second step of affixing the outer panels to the outside of the frame members, by using screws, in a manner that makes the case easy to disassemble.